DOCUMENT RESUME

ED 206 414 PS 012 391

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TITLE Developmental Trends in Children's Attributions for Achievement and Social Outcomes.
PUB DATE Aug 81
NOTE 15p.; Paper presented at the Annual Meeting of the American Psychological Association (89th, Los Angeles, CA, August 24-28, 1981).

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS Academic Achievement; *Age Differences; *Attribution Theory; Elementary Education; *Elementary School Students; Failure; Social Cognition; Success
IDENTIFIERS Causal Inferences

ABSTRACT

This study investigated developmental trends in children's attributions for success and failure in achievement and social situations. Twenty-four second graders, 21 fourth graders, and 24 sixth graders were shown pictures and told accompanying stories depicting either social and achievement success or social and achievement failure. They were then asked to generate as many reasons as possible as to why the outcomes occurred. The answers were categorized into attributional dimensions according to the Coding Scheme of Perceived Causality (Elig and Frieze, 1975). Results showed that the older children generated a larger number of different causes than did the younger children. All children generated more internal than external causes across situations and outcomes. Specifically, more internal-stable causes were generated for social situations and for success outcomes, while more internal-unstable reasons were generated for achievement situations and for failure outcomes. No significant sex differences were evident for any variable. (Author/MP)

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ED206414

Paper presented at the annual meetings of the American Psychological Association, Los Angeles, CA, 1981

Developmental Trends in Children's Attributions for Achievement and Social Outcomes

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Developmental Trends in Children's Attributions for Achievement and Social Outcomes

Abstract

This study investigated developmental trends in children's attributions for success and failure in achievement and social situations. Twenty-four second graders, 21 fourth graders, and 24 sixth graders were shown pictures and told accompanying stories depicting either social and achievement success or social and achievement failure. They were asked to generate as many reasons as possible as to why the outcomes occurred. The answers were then categorized into attributional dimensions according to the Coding Scheme of Perceived Causality (Elig & Frieze, 1975). The results showed that there was an increase in the number of different causes generated as a function of age. In addition, the children generated more internal than external causes across situations and outcomes. Moreover, they generated more internal-stable causes in social situations and for success outcomes, whereas they generated more internal-unstable reasons in achievement situations and for failure outcomes. No significant sex differences appeared for any variable with this population.

Developmental Trends in Children's Attributions
for Achievement and Social Outcomes

Attribution theory is increasingly being applied to the analysis of psychosocial problems including loneliness, depression, insomnia, alcoholism and victimization (Frieze, Bar-Tal, & Carroll, 1979). In particular, attributional patterns in the perception of success and failure are thought to play important roles in the development of self-esteem and perceived competence, which in turn mediate vulnerability to problems in living (cf. Abramson, Seligman, & Teasdale, 1978).

Little research has been devoted to studying the development of attributional patterns (see Bar-Tal, Note 1 and Frieze & Snyder, Note 2 for exceptions). Therefore, the present study was designed to investigate the effects of age, sex, and type of situation on the causal perception of success and failure. Second, fourth, and sixth grade children responded to hypothetical social and achievement situations of success and failure, and the number of different causes generated as well as an analysis of the patterns of attributional dimensions used was examined.

Method

Subjects

Subjects were elementary school students from the University School in Indiana, Pennsylvania. Twenty-four second graders, 21 fourth graders and 24 sixth graders served as the sample. Thirty-two females and 37 males were evenly divided into success and failure conditions.

Interviewers

Interviewers were four female undergraduate psychology majors. The experimenters received training in interviewing children,

eliciting attributions, and in understanding basic attribution theory. They were schooled in the Elig-Frieze Coding Scheme (Elig & Frieze, 1975), so they would know how to score subjects' answers. Prior to the experiment the interviewers role played the experimental procedure with one another until they achieved a satisfactory level of interviewing competence. After achieving a thorough understanding of the procedure, they were permitted to run subjects.

Stimuli

Experimental stimuli were four situations which were: achievement success, achievement failure, social success, and social failure. Each subject received an achievement and a social situation, which were either both successes or both failures. The situations were presented via a picture and a story.

The following are examples of each situation:

Achievement Success: There is a picture of a boy (girl) sitting at a desk, facing a teacher. The teacher is handing the child a paper with an A+ at the top. The story is this: A boy (girl) who is your age gets back a test on which he (she) did very well. Why do you think he (she) did so well?

Achievement Failure: There is a picture of a boy (girl) sitting at a desk, facing a teacher. The teacher hands the child a paper with an F at the top. This is the story: A boy (girl) who is your age gets back a test on which he (she) did very bad. Why do you think he (she) did so bad?

Social Success: There is a picture of a boy (girl) smiling and shaking hands with a group of boys (girls). The story is this: A boy (girl) who is your age moves into a new neighborhood. Soon

he (she) meets the other boys (girls) who are the same age and they become friends right away. Why do you think he (she) made friends so quickly?

Social Failure: There is a picture of a boy (girl) looking unhappy while a group of boys (girls) walk away from him (her). This is the story: A boy (girl) who is your age moves into a new neighborhood. Soon he (she) meets the other boys (girls) in the neighborhood, but they don't want to play with him (her). Why do you think they don't want to play with him (her)?

Pictures were used so the subjects could visualize the story better. Sex and age of the characters were consistent with those of the subjects, so the subjects could relate to the characters better. The situations were balanced for sex. The males saw pictures and heard stories of males, while the females saw pictures and heard stories of females.

Procedure

Each subjects was interviewed individually in a small, private room. In the testing room, the child was asked to sit down and was then administered the following instructions:

> I am going to show you pictures that might be used in story books. The stories will be about kids like you. The stories will be about things that have probably happened to you or someone you know. What I am goin to do is show you the pictures and tell you a little bit of the story. Because you know a lot about kids, I would like you to help me make the stories as true as possible.

The subjects were presented two pictures and heard two stories, one at a time. The subject heard either achievement and social success stories, or achievement and social failure stories. The

subject was first shown the achievement picture and heard the achievement story. After the subject gave one reason the experimenter would say "That's a good reason! Can you give me another reason why this might have happened?" After the next reason the experimenter would say "That's very good! Can you think of still another reason why this happened?" When the subject seemed to be done, the experimenter would say, "I'll bet you can think of one more reason why this happened!" The experimenter continued to give encouragement and positive reinforcement until the subject could give no more answers. As the subject answered, the experimenter marked the causes on a pre-made answer sheet. The answers on the sheets were derived from lists made by Bar-Tal (1978) and Frieze (1979). After the subject gave all of his answers, the experimenter went back to each answer and asked the subject how much he thought that reason really had to do with the outcome - whether it had (1) nothing to do with it, (2) a little to do with it, (3) something to do with it, or (4) a lot to do with it. After finishing the achievement story, the experimenter went on to the social story and repeated the above procedure. The experimenter thanked the subjects for helping in the experiment and told them they had given a lot of good answers and had been a big help. Then they were returned to the classroom.

Scoring Procedure

Two scores were derived from each subject. First, the total number of different causes given for each story was computed. Each cause was categorized as internal-stable, internal-unstable, external-stable, or external-unstable, according to the Elig-Frieze Coding

Scheme, and the total number of causes in each category served as an additional dependent measure.

RESULTS

1. A preliminary analysis revealed that no sex differences emerged as a main effect or as part of a significant interaction with grade, outcome, or type of situation. The sex variable was therefore collapsed, and the data were analyzed by means of 2 X 2 X 3 (outcome x situation x grade) mixed analyses of variance.
2. With regard to the number of different causes elicited, the results indicated a main effect for grade, $F(2,63) = 4.61$, $p = .01$. A subsequent Newman-Keul's test revealed that fourth and sixth grade subjects generated significantly more different causes across situations and outcomes than second grade subjects. ($p < .05$). The mean number of different causes for the three grades was 2.67 (range 1-9), 4.02 (range 2-10), and 4.12 (range 2-12) respectively. There was no difference between fourth and sixth grade students in the number of different reasons given.
3. A complex triple interaction emerged between outcome, situation, and grade, $F(2,63) = 5.15$, $p = .008$. In the second grade the least number of reasons were given for social and achievement success and the most different reasons for social and achievement failure. However, a linear increase in the reasons for success are noted through the sixth grade such that by the sixth grade students think of many reasons for social and achievement success. For failure on the other hand, an increase in different causes was noted in the fourth grade for both achievement and

social failure, but no increase was noted for achievement failure in sixth grade subjects, and an actual decrease was found in the number of different reasons for social failure. In fact, by the sixth grade the least number of different causes are generated in social failure situations.

4. Data were analyzed for differences in the types of causes generated. Each of the subjects' responses was categorized into one of four types of attributions based on the Elig-Frieze Coding Scheme (1975): these were internal-stable, internal-unstable, external-stable, and external-unstable. Each type of attribution was treated as a separate dependent variable in 2 X 2 X 3 mixed analyses of variance (situation x outcome x grade). The results indicated main effects for situation, grade, and outcome. With regard to type of situation, the students generated more internal-unstable causes in achievement situations than social situations, $F(1,63) = 145.30$, $p = .001$. Conversely, the students generated more internal-stable causes for social situations than achievement situations, $F(1,63) = 65.58$, $p = .001$. Children also generated more external-stable causes in social than achievement situations. With regard to outcome the students generated more internal-stable reasons for success than failure, $F(1,63) = 3.99$, $p = .05$. Again, the students generated more internal-unstable reasons for failure than success, $F(1,63) = 6.87$, $p = .0$[illegible] No other main effects emerged on the outcome variable. With regard to grade, a post hoc analysis (Newman-Keuls) of the significant ANOVA ($F[2,63] = 9.943$, $p = .001$) indicated that fourth and sixth grade students

generated more internal-unstable causes than second grade students. An analysis of a significant interaction ($F[2,63] = 7.36$, $p = .001$) between grade and situation revealed that all grade levels give more internal-unstable causes in achievement than social situations, and that fourth and sixth grade children give more internal-unstable causes than second grade children in achievement situations.

5. Looked at in terms of percentages, across all grades students give more internal causes than external causes. However, differences do emerge as a function of type of situation on the stability dimension. Children generate more unstable causes in achievement situations than social situations. In social situations the reverse is true. Children generate more stable reasons and unstable reasons.

6. Table 2 shows the percentage of causes in each category as a function of grade and outcome. As can be seen, the percentages remain stable across age and grade. Again children generate more internal than external causes. Moreover, they generate more stable causes for success and more unstable causes for failure.

Conclusions

1. Children perceive outcomes as being related to an increasing variety of causes as they grow through the elementary years. This finding is consistent with most developmental theories which suggest that development through puberty proceeds toward a state of increasing differentiation and articulation. This finding in part replicates that of Bar-Tal et al, 1980 who studied developmental trends in Israeli children. Evidence from that study suggests that there is a decrease in the number

of different causes generated after puberty which reflects a selectivity in attention and information processing on fewer but more relevant causes.

2. Through the fourth grade children think of many different reasons for failure and fewer reasons for success. This is reversed in the sixth grade and an actual decrease in the perception of different causes for failure, particularly social failure is noted.

3. Across outcomes and situations, elementary age children think of more internal than external causes. This likely reflects the basic egocentricity of latency aged children. This finding, which has been replicated in two other studies (Bar-Tal et al., 1980 in Israel and Frieze and Snyder, note one) suggests that children see themself as highly responsible and in control of their outcomes. Piaget had noted that one of the last concepts to develop in children is that of chance. Children tend to perceive themself as having much power and control, and that people get pretty much what they deserve. That is, if a person has a negative experience, children believe that they must have deserved it.

4. Achievement outcomes are perceived as being primarily related to unstable causes that are internal to the individual (i.e., effort). With this sample, it suggests positive expectancies with regard to future achievement performances.

5. Social outcomes are perceived as being primarily related to stable factors (i.e., personality), either their own and another person's. Stable factores are not very changeable. Hence,

social failure related to internal-stable factors implies little likelihood for change in relationships in the future. Since peer relationships are considered very important in the latency period social failure related to internal-stable factors can have devastating impacts on self-esteem and social confidence.

6. Children across the elementary years tend to attribute successes to internal-stable causes and failures to internal-unstable causes. This is considered highly adaptive, particularly for self-esteem and a sense of potency in affecting one's environment.

Reference Note

Bar-Tal, D. Development of causal perception of success and failure. Manuscript submitted for publication, 1980.

References

Abramson, L. Y., Seligman, M. E., & Teasdale, J. D. Learned helplessness in humans: critique and reformulation. Journal of Abnormal Psychology, 1978, 87, 49-74.

Bar-Tal, D., & Darom, E. Pupils attributions of success and failure. Child Development, 1979, 50, 264-267.

Elig, T., & Frieze, I. H. A multi-dimensional scheme for coding and interpreting perceived causality for success and failure events: The CSPS. JSAS: Catalog of Selected Documents in Psychology, 1975, 5, 313. MS #1069.

Frieze, I.H., & Snyder, H.N. Children's beliefs about the causes of success and failure in school settings. Journal of Educational Psychology, 1979. In press.

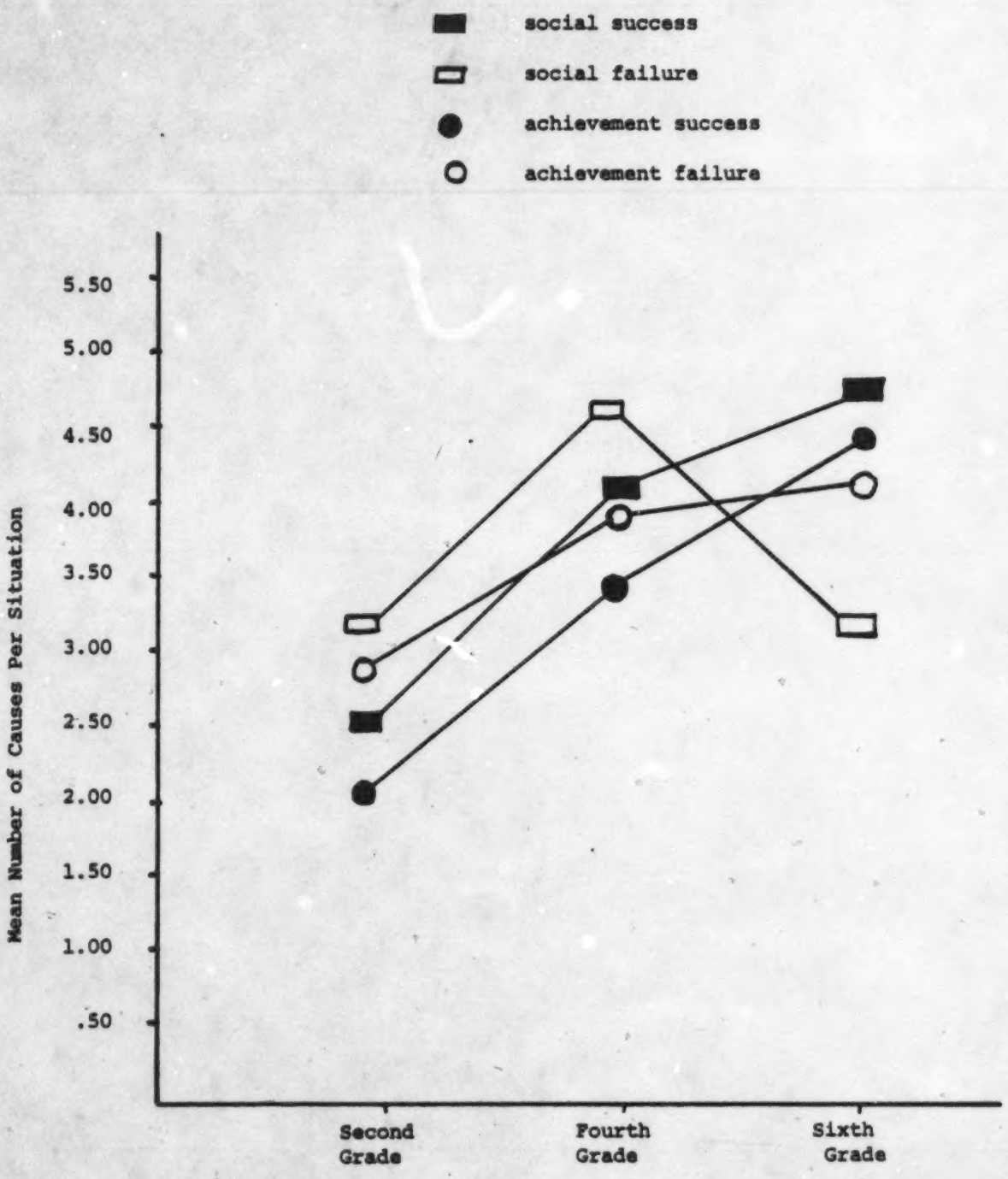

Figure 1

Mean Number of Causes Per Situation Across Grade

Table 1

Percentage of Attributions Given by Each Grade for Achievement and Social Situations

	Second Grade		Fourth Grade		Sixth Grade	
	Achievement	Social	Achievement	Social	Achievement	Social
Internal-stable	19%	54%	18%	50%	19%	51%
Internal-unstable	56%	10%	62%	14%	64%	11%
External-stable	19%	29%	14%	30%	11%	30%
External-unstable	6%	7%	6%	6%	6%	8%

Table 2

Percentage of Attributions Given by

Each Grade for Success and

Failure Situations

	Second Grade		Fourth Grade		Sixth Grade	
	Success	Failure	Success	Failure	Success	Failure
Internal-stable	44%	33%	42%	27%	40%	27%
Internal-unstable	27%	34%	31%	45%	33%	47%
External-stable	27%	22%	25%	19%	22%	17%
External-unstable	2%	11%	2%	9%	5%	9%